ing." The discussion includes a brief review of the apparatus that is used in each operation. The Appendix (4 pp.) includes the methods of preparing the various indicators, reagents and solvents used throughout the manual.

The reviewer feels that the manual is a worthy companion to the text "Organic Chemistry" by Porter and Stewart (Ginn and Company, 1943) and that it should be very useful in an elementary organic course of the type for which it has been designed. The diagrams throughout the manual are entirely adequate, and the paper, press work and binding are very good.

CHARLES R. DAWSON

COLUMBIA UNIVERSITY

Second Year College Chemistry. By W. H. CHAPIN and L. E. STEINER. New York: John Wiley and Sons, Inc. Fifth edition. 575 pages. 1943. $3.75.

SCHOLARLY additions by the junior author give this text better balance of subject-matter than its predecessors. Although sequence of topics remains the same, much material appears for the first time. This includes a more rigorous correlation between the physics and chemistry of liquids and of solids; new mathematical derivations inserted in smaller type for the abler student; 165 miscellaneous problems in the appendix; crystal structure with splendid diagrams and an excellent discussion of ionic and covalent radii; mathematical derivation of the law of radioactive decay; descriptive material on tracer isotopes; and a detailed treatment of the Brønsted system of acids and bases.

The preface states that "the kinetic point of view is maintained throughout." For this reason it might have been advisable to include such subjects as reaction rates and the simpler aspects of quantum and statistical mechanics and the use of potential energy curves in this otherwise well-rounded, valuable text.

HUBERT N. ALYEA

PRINCETON, N. J.

General Chemistry. By HORACE G. DEMING. New York: John Wiley and Sons, Inc. Fifth edition. 706 pages. 1943. $3.75.

COMPLETELY rewritten, the new edition still emphasizes physical chemistry aspects, an approach for which Professor Deming has gained a worthy reputation. As such the treatment should appeal particularly to students in engineering. Rearrangement in order of topics has been extensive, with chapters on the atmosphere, the periodic table, atomic structure and pH appearing much earlier than in the fourth edition. Discussion of principles is curtailed somewhat to provide room for approximately a hundred pages of new material on industrial chemistry in the war effort: plastics, elastomers, ceramics, hydrogenations, light metals, detergents, and so forth. Once again the author has given us a top-notch, up-to-the-minute text.

HUBERT N. ALYEA

PRINCETON, N. J.

AUDIOMETRY

Clinical Audiometry. By C. C. BUNCH. Pp. 186. Illustrated. St. Louis: The C. V. Mosby Company. 1943. $4.00.

This is an intensely personal account of the author's life work—the development and use of the audiometer and the obtaining of countless audiograms. The sudden and untimely death of the author, just after completion of the manuscript, probably accounts for the frequent repetitions, quick digressions and returns that might have been eliminated in a final "polishing off."

The point of view of the book is highly specialized and does not extend far into any of the related fields of physics, physiology, psychology or clinical otology. For example, the author does not accurately explain or define the decibel, although it is now the accepted unit of measurement of hearing loss.

It is surprising, also, that no mention is made of the calibration of an audiometer, or of the range of variation of "normal" thresholds, or of possible differences in calibration of different commercial instruments.

In spite of its shortcomings, however, the book will remain a valuable record of the development of audiometry and of Dr. Bunch's extensive acquaintance with human auditory function.

HALLOWELL DAVIS

HARVARD MEDICAL SCHOOL

REPORTS

DOCTORATES IN SCIENCE[1]

BOTH the total number of doctorates granted in all fields of knowledge, including the sciences, and the total granted in the sciences alone reached an all-time high in the 1940–41 academic year. In all fields together the decline was about 9 per cent. from 1941 to 1942 and 17 per cent. from 1942 to 1943. In the group of the sciences alone, the decline was about 10 per cent. from 1941 to 1942 and 16 per cent. from 1942 to 1943. These figures are surprisingly uniform. They reflect an interestingly stable relation between the sciences as a group on the one hand and the social sciences and humanities as a group on the other. For

[1] Based upon "Doctoral Dissertations Accepted by American Universities, No. 10, 1942/43." New York: H. W. Wilson Company. 1943.